Mississippi Forestry Commission
Public Lands Forest Stewardship Management Plan

For

Claiborne County School District
Claiborne County, Mississippi

INTRODUCTION

The Claiborne County School District owns 18 sections of land in Claiborne County. There is a total of 9,839 acres of land and water. There are 8,778 acres of forestland and 1,061 acres of non forest land. The non forest land use consists of agriculture, roads, utilities, water, food plots, buildings, etc. Based on percentage, 89 percent is timberland and 11 percent is non-forested. This plan covers the 8,778 acres of forestland. Of the forested acreage, approximately 32 percent is in pine, 49 percent is in hardwood, and 19 percent is in mixed stands. Approximately 17 percent of the forested acreage (1,525 acres) is located in sensitive areas like visual buffers and streamside management zones. Timber management in these areas is somewhat limited. Within the sensitive areas, there are roughly 38 acres of inoperable land, due to steep slopes, poor access, and other factors. The forest product distribution is 55% sawtimber, 26% pulpwood, and 19% sub-merchantable. This is all of the manageable forestland in the county regardless of the classification.

The purpose of this plan is to explain the steps needed in developing the timber potential on each individual section and to summarize them for the county. The information in this plan is based on ground surveillance and a low percentage timber cruise for inventory. All of the volume, costs, and revenues in this plan are based on samples and estimates. These figures can and will change. Any plans or budgets that are set up using this plan should be tempered with that thought.

The Mississippi Forestry Commission has an agreement with the Claiborne County School District to manage the forests on school lands. The Forestry Commission acts as the Board's technical advisor on all forestry matters. The Commission is responsible for making recommendations to the Board of Trustees for work that needs to be done and securing their approval for doing the work. All work will be done on an actual cost basis. The objective of the Commission is to acquire a sustained yield from the forest and maintain the full production potential of the land. Other factors which are considered in this plan are as follows: Forest Protection, Water Quality, Aesthetics, Ecological Restoration, Wildlife Management, Environmental Education, Archeological and Cultural Resources, and Recreation.

This plan is for a period of ten (10) years. It should be revised in 2022. Small revisions may need to be made regularly because of many changing factors, but the basic outline and scheduling should be followed as closely as possible to ensure that all of the timberland is put into and kept in full production.

MANAGEMENT OBJECTIVES:

The primary management objectives for this ownership are to get every acre producing to its full potential on a sustained yield basis, and to provide adequate wildlife habitat while still producing good quality timber. Other management objectives, such as aesthetics, will be considered when timber activities are being performed. The steps necessary to meet these objectives will be outlined in the remainder of this plan.

TIMBER TYPE DESCRIPTIONS

The timber on the Claiborne County School District's land varies greatly in species and ages. There are at least 3 broad timber types. They are as follows: Bluff Hardwood/Pine, Delta Hardwood, and Pine.

Bluff Hardwood/Pine – This is high quality hardwood and pine sawtimber growing on loess soils. Most of the timber of this type is natural. Often, two or more age classes may be distinguished. However, most of the timber volume in each stand is usually in one age class. Therefore, most stands will be treated as even aged. Many of these sites are some of the most productive hardwood sites found anywhere. They will support a wide variety of species. The species will vary depending on the soil, position on the slope, and stand disturbances such as timber cutting, fire, etc. For much of the county, these stands are mostly hardwood with scattered pine. However, much of the east side of the county is better suited to pine. The primary pine species is loblolly. However, there are scattered shortleaf pines in many stands. The primary hardwood species are as follows: Upper slopes - red oaks (cherrybark, shumard, water oak, and southern red oak), white oaks, yellow poplar, sweetgum, basswood, hickory, beech, and locusts. Mid slopes - all of the above, plus ash, sassafras, maples, magnolias, and persimmon. Bottoms – sweetgum, sycamore, cottonwood, boxelder, ash, water oak, willow oak, elms, and walnut. Some common noncommercial trees are flowering dogwood, eastern hophornbeam, and American hornbeam. The topography ranges from very steep to gently rolling

Delta Hardwood – This is bottomland hardwood sawtimber growing in the Mississippi River Delta. Most of the timber of this type is natural. Often, two or more age classes may be distinguished. However, most of the timber volume in each stand is usually in one age class. Therefore, most stands will be treated as even aged. The species found on these sites will vary depending on the soil, elevation, and stand disturbances. However, the primary factor that influences species and stocking in these stands is the timing and duration of flooding from the Mississippi River. Most of the red oak is water oak and nuttall oak. Other common species are green ash, sweet pecan, sweetgum, sugarberry, boxelder, elms, sycamore, cottonwood, honey locust, and persimmon. The lowest sites will only grow bitter pecan, overcup oak, boxelder, tupelo gum, cypress, and willow. Some noncommercial species found in these sites include: swamp privet, buttonbush, and roughleaf dogwood. Pine is not suitable for these sites. The topography ranges from flat to undulating. The slope is slight and quite often the difference in elevation between ridgetop and bottom is only a few feet. However, this is enough to change species composition.

Pine – These areas include all areas in which pine makes up 85% or more of the stand. Much of this timber type was formed by planting loblolly pine either in old fields or after clearcutting. However, this timber type does include some of the natural stands of loblolly and

shortleaf pine.

TIMBER MANAGEMENT RECOMMENDATIONS

All of Claiborne County School District's land will continue to be managed on a sustained-yield basis. This can be done by maintaining even-aged stands within an uneven-aged forest. Individual stands may be as small as 1 acre or as large as 125 acres. In general, sustained-yield means that future generations will be able to enjoy the same benefits from the forest as we do today. This can be achieved by dividing the total manageable forest acreage by the rotation age to determine how many acres should be regenerated per year. Ideally, there should be the same number of acres in each age class throughout the entire forest. Hardwood stands are generally considered mature around age 60 to 70, and pine stands are usually considered mature around age 35-40. However, hardwood stands are usually large enough for selective sawtimber thinnings within 35-40 years and pine stands are large enough for sawtimber thinnings around age 25. Due to sensitive areas (like streamside management zones) which cannot be regenerated by final harvest methods, only 7,253 acres of the forested acreage can be regenerated by final harvest methods. Using a 60 year rotation for the hardwood and mixed stands and a 35 year rotation for the pine stands, this means roughly 152 acres per year can be regenerated. However, there are roughly 4,829 acres of sawtimber, which needs to be regenerated within the next 20-25 years. There are 2,278 acres (roughly 228 acres/year) of final harvests planned for the next 10 years. Since the hardwood stands should be large enough for sawtimber thinning by around age 35, and since some of the acreage will be managed for a pine rotation, the planned harvest volume should be sustainable.

In addition to the regeneration harvests, many stands will need to be thinned selectively. Thinnings may be used to improve the health of the stand, to improve growth, to improve species composition, to remove storm damaged trees, to initiate advanced regeneration, and to remove high-risk trees. Some other factors considered when a decision to thin, regenerate, or grow a stand is made are as follows: (1) age, (2) basal area, (3) timber quality, (4) site quality, (5) markets, (6) acreage, (7) risk of soil erosion, (8) wildlife, (9) aesthetics, and (10) access. Many of the planned harvests will combine regeneration cuts and selective thinnings over two or more stands into one sale. The higher volume of the regeneration harvest will compensate for the low volume of the thinning, making the sale more attractive for timber buyers.

Once the decision to regenerate a stand has been made, decisions must be made regarding site preparation and planting. In hardwoods, the best way to do this is to inspect the stand for the presence of natural regeneration and problem species before and after the harvest is made. Below are some of the options for regenerating a stand: harvest only (no site prep and no planting), site prep for natural regeneration, mixed planted pine and natural hardwood, site prep and plant pure pine or hardwood, and plant without site prep.

SOILS

Soils are a very important consideration in timber management, especially in hardwood management. Hardwoods are very soil and site specific. Soil surveys and many other soil publications will be used when making management decisions. Most of the soils in Claiborne County are highly productive and highly erodible. The soils of the Loess Bluffs are primarily

Memphis, Natchez, Loring, Collins, Falaya, and Adler silt loams. The Mississippi River Delta soils are primarily Bowdre, Tunica, and Crevasse clays, and Commerce silt loam

WATER QUALITY

To minimize soil erosion and stream sedimentation, Best Management Practices as described in "Mississippi's Best Management Practices Handbook" will be used in all prescriptions included in this plan. These practices include but are not limited to: (1) using waterbars, turnouts, seed, and fertilizer on roads, skid trails, and firebreaks; (2) using Streamside Management Zones, (3) machine planting trees along the contour, and (4) keeping chemicals away from streams.

WILDLIFE

Wildlife habitat is becoming an increasingly important consideration in managing the timber on Sixteenth Sections. No single forest condition favors all kinds of wildlife. By the same token each timber management practice will affect different wildlife in different ways. Wildlife habitat considerations will be made when carrying out silvicultural practices. The practices recommended in this plan should have a positive long term impact on most species of wildlife, including deer and turkey. This should not be confused with hunting. The impact of silvicultural practices on hunting depends upon each individual hunter's objective. Therefore, it would be almost impossible to meet all of the objectives of each individual hunter.

Below are some of the wildlife habitat considerations that are being made. Regeneration harvests have been scheduled in a way that provides diversity of habitats across each section. Streamside management zones, that are maintained to protect water quality, provide good travel corridors for animals such as deer, turkey, and squirrel. When firebreak and road maintenance is performed, the seed cover selected for erosion control is also selected for its attractiveness for wildlife. Also, hunters are able to use timber loading areas and powerline right-of-ways as food plots.

PROTECTION

A. Fire Control

The Mississippi Forestry Commission has the responsibility of the fire control on all sections. The Commission operates one (1) suppression unit in Claiborne County. In the event of emergency, often units may be called in from adjoining counties.

Dispatching of fires is done by contacting the central dispatch located at this District Office in Brookhaven, Mississippi at 1-888-823-3473.

Firelanes are established on all sections in Claiborne County. In addition to fire protection they serve several purposes such as access roads, sale boundaries, and openings for wildlife. Most of these firelanes have been established on ridge tops instead of around the perimeter of the property. This is due to the difficult terrain and the highly erodible soils.

When firelanes are established or maintained they will meet specifications outlined in the Mississippi Forestry Commission Firelane Handbook. To reduce cost and soil disturbance, firelanes will be maintained on an as needed basis instead of a set schedule.

B. Insect and Disease

Insect and disease problems are usually resolved through normal management practices and occasional salvage sales. All stands are inspected periodically. Any special problems will be handled as they arise.

C. Beaver

Beaver often create problems in forest land, particularly in the flat Delta terrain. The main problem is flooded timber during the growing season. Whenever this is encountered, the water will be drained and an attempt made to control the beaver.

D. Risk Management

Risk management refers to the risk of losing timber value from standing timber. Risk should be evaluated for individual trees as well as each stand. Stands that are mature have a higher risk for natural disasters, insect problems, and disease than young stands. Risk for individual trees includes things such as tree health, rot, root exposure, logging damage, and size. For instance, a 40 inch dbh, 3 log cherrybark oak may be healthy, but if the next harvest is planned in 12 years, there is risk that the tree may die, lose value, or become too big to cut by the time the next harvest is made.

BOUNDARY LINES

All school sections in Claiborne County have been surveyed. All property lines are being maintained with orange paint by the Mississippi Forestry Commission on a regularly scheduled basis. Occasionally, old surveyed lines may need to be resurveyed due to boundary trees dying, etc. If any new lines are surveyed they will also be maintained.

AESTHETICS

Aesthetics addresses the appearance of the property to people, and beauty lies in the eyes of the beholder. One person will look at a regeneration area and see devastation, while another may see the beginning of a new forest. Therefore, it is almost impossible to manage a forest for aesthetics. Most of this ownership is in rural areas and aesthetics should be a low priority. However, visual buffers are occasionally used in sensitive areas to improve aesthetics.

THREATENED AND ENDANGERED SPECIES: All public lands will be managed in accordance with the current laws and regulations governing both plants and animals that are considered threatened and/or endangered. Prior to any management activity the tract(s) in question will be surveyed for any known threatened or endangered species. If any species is found on tract, then the tract will be managed in accordance with the guidelines published for that particular species.

ECOLOGICAL RESTORATION

Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed. No ecological restoration activities should be needed across this ownership at this time.

ENVIRONMENTAL EDUCATION

Environmental educational goals are to provide educational opportunities for children and adults through the development of items such as nature trails with tree identification markers,

wildlife viewing areas, picnic areas, parking, and public restroom facilities.

RECREATION
The primary recreational use across this ownership is hunting and fishing.

ARCHEOLOGICAL AND CULTURAL RESOURCES
Any historical, cultural, or archaeological item that is found on public land will be identified, located, marked and preserved. No silvicultural practice that will damage or destroy these items will be conducted on the site. Sufficient area around the site may be excluded to insure that the site will not be damaged. There are no published lists of items to be preserved. Items would generally consist of old monuments, grave sites, Indian mounds, etc.

Utilization and marketing: All products removed from the lands covered by this plan will be utilized if at all possible.

All marketing will be in accordance with the schedule in the appendix. All timber will be marked at stump and eye level. In some cases of clear cuts, timber may be cruised by a professional forester employed by the Commission. After marking or cruising, the forester in charge will compute the volume of all products. Volume will be computed using Doyle Scale with appropriate form classes. The sale will be advertised by the Claiborne County School Board, Claiborne County, Mississippi. The period of advertisement will be 21 days. Sample contracts will be sent to all buyers in the area of the sale by the Forestry Commission. All bids must be marked "bid" and sent to the Claiborne County School District, Port Gibson, Mississippi. The successful bidder will be governed by the terms of the contract. The forester in charge will make periodic checks of the cutting operation to insure compliance with the terms of the contract.

The School Board will be invoiced for the work at the completion of the sale. A minimum of 15% percent of the sale will be placed in an escrow fund for forestry work of any approved type. When more funds are needed, the Forestry Commission may request the School Board to place additional funds in the escrow account. This may be from timber sales, or from the general fund money.

BEST MANAGEMENT PRACTICES: The term "best management practice" refers to a practice or combination of practices, which is determined to the most effective, practical means of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with the water quality goals.

Public land management can generally be divided into three categories as follows:

(1) General forest management which consists of prescribed burning, hardwood brush control with chemicals and other general maintenance work.

(2) Timber harvesting – this is the cutting and removing of forest products. These cutting operations will vary in size, shape and type cutting according to the specific situation. These cutting will include but not be limited to insect removal, thinning of stands or clear cutting of stands.

(3) Post harvesting – this is any activity carried out as a result of harvesting

and conducted after the harvesting has been completed. These activities will include but not be limited to hardwood brush control, regeneration work and road construction/maintenance.

All work on public lands will address pollution matters on upland, bottomland and wetland sites. All work will be planned and carried out according to Mississippi's Best Management Practices Handbook.